

# Rhodora

JOURNAL OF THE  
NEW ENGLAND BOTANICAL CLUB.

Conducted and published for the Club, by

BENJAMIN LINCOLN ROBINSON Editor-in-chief.

FRANK SHIPLEY COLLINS  
MERRITT LYNDON FERNALD } Associate Editors.  
HOLLIS WEBSTER

WILLIAM PENN RICH  
EDWARD LOTHROP RAND } Publication Committee.

Vol. 6.

July, 1904.

No. 67.

## CONTENTS:

Some Interesting Rhode Island Bogs. <i>J. F. Collins</i> . . .	149
Lists of New England Plants,—XVI. <i>W. Deane</i> . . .	151
The Green Alders of New England. <i>M. L. Fernald</i> . . .	162
An Interesting <i>Arisæma triphyllum</i> . <i>A. G. Clark</i> . . .	163
A New Station for <i>Nyssa</i> in Maine. <i>J. C. Parlin</i> . . .	164
Field Meeting of the Vermont Botanical Club . . .	164

Boston, Mass.

740 Exchange Building.

Providence, R. I.

Preston and Rounds Co.

Printed by Edward W. Wheeler, Cambridge, Mass.

**RHODORA**.—A monthly journal of botany, devoted primarily to the flora of New England. Price \$1.00 per year (\$1.25 to all foreign countries except Canada); single copies 15 cents. Volume 1, \$1.50. All remittances by check or draft, except on Boston or New York, must include ten cents additional for cost of collection. Notes and short scientific papers, relating directly or indirectly to the plants of the northeastern states, will be gladly received and published to the extent that the limited space of the journal permits. Forms will be closed five weeks in advance of publication. Authors (of more than one page of print) will receive 25 copies of the issue in which their contributions appear. Extracted reprints, if ordered in advance, will be furnished at cost.

Address manuscripts and proofs to

B. L. ROBINSON, 3 Clement Circle, Cambridge, Mass.

Subscriptions, advertisements, and business communications to

W. P. RICH, 300 Massachusetts Avenue, Boston, Mass.

Single copies may be had from

E. L. RAND, Corresponding Sec'y N. E. Botanical Club,  
740 Exchange Building, Boston, Mass.

Entered at Boston, Mass., Post office as Second Class Mail Matter

---

## FLORA OF THE SOUTHEASTERN UNITED STATES. Just issued!

By JOHN K. SMALL, Ph. D. Being descriptions of the Flowering and Fern-Plants growing naturally in North Carolina, South Carolina, Georgia, Florida, Tennessee, Alabama, Mississippi, Arkansas, Louisiana and The Indian Territory, and in Oklahoma and Texas east of the one hundredth Meridian, with analytical keys to the Orders, Families, Genera and Species.

Large octavo, pp. x + 1370. Price \$3.60.

Subscriptions may be sent to DR. JOHN K. SMALL, Bedford Park, New York City.

---

## MOSESSES with Hand-Lens and Microscope. PART II NOW READY.

So pp. quarto. Dicranaceae to Encalyptaceae. 25 full page plates. 50 cuts in the text. The Hand-Lens characters are fully emphasized so that these alone are often sufficient to determine the plant and in addition the MICROSCOPIC CHARACTERS are treated in the same untechnical manner. Part I contains a complete TEXT BOOK on Mosses and a systematic treatment of the families part way through the Dicranaceae. Price \$1.00, per part, post-paid. Sample pages free.

A. J. GROUT, Ph. D., 360 LENOX ROAD, BROOKLYN, N. Y.

---

## HARDY NATIVE AMERICAN PLANTS

and Carolina Mountain Flowers. Many new rare and local varieties.

HARLAN P. KELSEY, Landscape Architect,

Prop. Highlands Nursery,  
Kawana, North Carolina.

Catalogues.

Tremont Building, Boston.

Consultation and plans for improvement of estates, private and public grounds, suburban properties and resorts.

---

## GROUT

**MOSESSES WITH A HAND-LENS.** Seventy-five pages, \$1.10 net, post-paid.

**MOSESSES WITH A HAND-LENS AND MICROSCOPE.** Part I. 86 pages. \$1.00 net, post-paid. Sample pages on application.

O. T. LOUIS, 59 FIFTH AVENUE, NEW YORK CITY.

---

*Advertisements of Nurserymen and Dealers in Botanical and other Scientific Publications are inserted in these pages at the following rates per space of 4 in. by 3-4 in. 1 year \$4.00, 6 months \$2.50.*

# Rhodora

JOURNAL OF

THE NEW ENGLAND BOTANICAL CLUB

---

Vol. 6

July, 1904

No. 67

---

## SOME INTERESTING RHODE ISLAND BOGS.

J. FRANKLIN COLLINS.

IN January, 1904, the Rev. Mr. Cheney of Pascoag, Rhode Island, visited a pond several miles from his home for the double purpose of fishing through the ice and of obtaining a winter outing. During the day his botanical interest, which is always very great, overbalanced for a time his piscatorial enthusiasm and he left the fishing holes to investigate the winter remnants of plants projecting above the ice and snow on one of the so-called floating bogs in the pond. One plant having evergreen leaves with revolute margins interested and puzzled him. He took home several twigs and a few days later showed them to the writer who confirmed his suspicions that the plant was what has long passed as *Andromeda polifolia*, L. (really *A. glaucophylla*, Link) — new to the flora of Rhode Island.

On the 19th of May, Messrs. Cheney, H. W. Preston and the writer visited the locality for the purpose of obtaining flowering specimens of the plant. We could not have timed our visit better for flowering specimens as the plants were in their prime—both buds and fully open flowers being found on almost every plant. Not one of the party ever dreamed of such a sight of *Andromeda* as was there revealed, for the plants could be counted by the thousands, partially covering and fringing all the floating bogs, each with scores of the beautiful pink or white corollas and similarly colored pedicels. It is safe to say that none of the party will ever forget the sight. Mixed with, or between, the patches of *Andromeda* were hundreds of plants of *Kalmia glauca*, Ait., another plant new to the state. Here also was found *Eriophorum vaginatum*, L., a third plant unrecorded for Rhode Island. Upon the bogs grew many Black Spruces, in fact many more than all the others that the writer has seen anywhere

else in the state combined. *Arceuthobium pusillum*, Peck—a fourth plant new to the state—was found to be covering many of these trees. The party returned happy botanically although somewhat uncomfortable as the result of a persistent and penetrating rain.

The retrospective view of an excursion of this sort often reveals vistas of thought and speculation which are sometimes of considerable interest. In this particular case at least two such have been opened to the writer.

First, it is impossible to believe that this section of the state could ever have been visited by such well known sharp-eyed older Rhode Island collectors as S. T. Olney, G. Thurber, J. W. Bailey, A. L. Calder, G. Hunt and J. W. Congdon, or some of these plants would long ago have been added to the known flora of our state.

Second, the speculation as to the origin and survival of such unique plant formations is of extreme interest. The writer has not fully satisfied himself as to the origin of these characteristically northern plants at this station, but probably it is not unlike that of other plants growing in similar situations elsewhere. The conditions which maintain them are, on the other hand, apparently quite evident. All the bogs are of the floating type, though anchored by at least a few roots or stems so that they do not drift about over the surface of the pond. Beneath the film of floating vegetation there is often twelve or more feet of water, as we learned by measuring through some of the numerous and treacherous openings in the floating mass. In the winter the ice forms beneath as well as through this comparatively thin layer of loosely entangled stems and peat moss. As the warm weather approaches in the spring the ice in the open pond is readily melted; not so with that in and under the bogs. Shielded from the sun's rays by the mass of stems and moss it melts but slowly and lingers long into the spring. At the date of our visit (19th of May) the ice at the depth of eight inches or a foot below the upper surface was still, in many places, too thick for us to break even by jumping upon it. In the more exposed spots it had entirely melted and at intermediate places we succeeded in breaking it where it measured more than an inch in thickness. It will thus be seen that many of the plants, while yet in bloom, had the lower part of the stems and roots at least partially encased in ice—a truly boreal condition of affairs and one which readily accounts for such an abundance of these northern plants at this station.

PROVIDENCE, RHODE ISLAND.

PRELIMINARY LISTS OF NEW ENGLAND  
PLANTS,—XVII

WALTER DEANE.

[The sign + indicates that an herbarium specimen has been seen; the sign — that a printed record has been found.]

## POLEMONIACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Gilia coronopifolia</i> , Pers. . . . .				+		
“ <i>inconspicua</i> , Dougl. . . . .				—		
“ <i>leucocephala</i> , Gray . . . . .				—		
“ <i>linearis</i> , Gray . . . . .	+		+			
“ <i>tricolor</i> , Benth., var. <i>longipedicellata</i> , Green- man . . . . .				+		
<i>Phlox maculata</i> , L. . . . .				—		+
“ “ var. <i>candida</i> , Gray . . . . .						+
“ <i>paniculata</i> , L. . . . .		+	+	+	+	+
“ <i>pilosa</i> , L. . . . .			+			+
“ <i>reptans</i> , Michx. . . . .			+			
“ <i>subulata</i> , L. . . . .	+	+	+	+		+
<i>Polemonium reptans</i> , L. . . . .		+				
“ <i>Van-Bruntiae</i> , Britton . . . . .			+			

## HYDROPHYLLACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Ellisia Nyctelea</i> , L. . . . .				+		
<i>Hydrophyllum appendiculatum</i> , Michx. . . . .						
“ <i>canadense</i> , L. . . . .				—		—
“ <i>virginicum</i> , L. . . . .		+	+	+		+
<i>Phacelia brachyloba</i> , Gray . . . . .				+		
“ <i>circinata</i> , Jacq. f. . . . .				—		
“ <i>congesta</i> , Hook. . . . .				—		
“ <i>Purshii</i> , Buckley . . . . .					+	—
“ <i>tanacetifolia</i> , Benth. . . . .				+		
“ <i>viscida</i> , Torr. . . . .						—
“ <i>Whitlavia</i> , Gray . . . . .				+		

<sup>1</sup> Printed in RHODORA as supplementary material.

## LENTIBULARIACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Pinguicula vulgaris</i> , L. . . . .	+	+	+			
<i>Utricularia biflora</i> , Lam. . . . .				+	+	+
" <i>clandestina</i> , Nutt. . . . .	+		+	+	+	+
" <i>cleistogama</i> , Britton . . . . .				+		
" <i>cornuta</i> , Michx. . . . .	+	+	+	+	+	+
" <i>gibba</i> , L. . . . .	+	+	+	+	+	+
" <i>inflata</i> , Walt. . . . .	+	+	+	+	+	+
" <i>intermedia</i> , Hayne . . . . .	+	+	+	+	+	+
" <i>minor</i> , L. . . . .	+	—		+	+	+
" <i>purpurea</i> , Walt. . . . .	+	+		+	+	+
" <i>resupinata</i> , B. D. Greene . . . . .	+	+	+	+	+	+
" <i>subulata</i> , L. . . . .				+	—	—
" <i>vulgaris</i> , L. . . . .	+	+	+	+	+	+

## OROBANCHACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Conopholis americana</i> , Wallroth . . . . .	+	+	+	+	+	+
<i>Epiphegus virginiana</i> , Bart. . . . .	+	+	+	+	+	+
<i>Orobanche uniflora</i> , L. . . . .	+	+	+	+	+	+

## MARTYNIACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Martynia louisiana</i> , Mill. . . . .	—			+		

## ACANTHACEAE.

	Me.	N. H.	Vt.	Mass.	R. I.	Conn.
<i>Dianthera americana</i> , L. . . . .			+			

## NOTES ON THE ABOVE LIST.

Judge J. R. Churchill and I discovered *Gilia coronopifolia* in Montague, Mass., on July 24, 1887. It was scattered over a dry, sandy field and along a bank by the road, the spike-like clusters of

scarlet flowers making a beautiful display. We were assured that the plants had been established there for several years. The native home of this species is South Carolina, south and west, and it is cultivated freely in gardens, but we could not trace the source of the Montague plants.

Mrs. Nellie F. Flynn has sent me for examination a specimen of *Gilia linearis* of which she found two plants growing near the Malted Cereal Company's mills in Burlington, Vt., on July 26, 1902. (See Torrey, III, 1903, 105.) In the herbarium of the New England Botanical Club I find a specimen of this species collected by Mr. J. C. Parlin in June, 1902, in an old field in North Berwick, in the extreme southern part of Maine. The label states that the plant probably originated from wool waste. These plants were of course casual introductions, but the species may yet be found in northern New England, for it is locally abundant on sandy beaches and rocky hills of the Baie des Chaleurs between the Province of Quebec and New Brunswick, and about seventy miles from the nearest point of northern Maine.

Mr. J. A. Collins of Lawrence, Mass., has sent me for examination a specimen of *Gilia* which he collected on wool refuse in that city on June 14, 1900, and noted in RHODORA, III, 1901, 92, as *Gilia androsacea*, Steud. He has since presented it to the Gray Herbarium. Dr. J. M. Greenman has kindly made a thorough study of the specimen, and his report, dated May 7, 1904, is as follows :

"I have compared carefully Mr. Collins's specimen with the entire representation of this genus in the Gray Herbarium, but I am unable to identify it unqualifiedly with any species there represented; and I am also unable to place it satisfactorily with anything recently described in this genus.

"The affinity of the plant is evidently with the Californian *G. tricolor*, Benth. and not with *G. androsacea*, Steud. A part of the original collection on which Mr. Bentham founded his *G. tricolor* is in the Gray Herbarium, and a comparison of Mr. Collins's specimen with this material shows the two plants, although differing in several regards, to be conspecific. A considerable suite of specimens representing *G. tricolor* shows, moreover, that the species is quite variable, more especially in the amount of pubescence and in the size and color of the corolla. Giving due weight to the possibility of variation, the single specimen secured by Mr. Collins seems to me to differ suffi-

ciently from the type in habit, in the mode of inflorescence, and in the calyx-characters to merit varietal rank. I therefore submit the following name and characterization:

"*GILIA TRICOLOR*, Benth., var. *longipedicellata*, Greenman, n. var. Stems diffusely branched from the base, 1 to 2 dm. high, sparingly glandular-puberulent: flowers on long slender pedicels (1 to 3.5 cm. in length): tube of the calyx becoming scarious below the sinuses, but little or not at all colored: calyx-teeth lance-acuminate: corolla 7 to 10 mm. long, colored as in the species proper.—MASSACHUSETTS: on wool refuse at Lawrence, 14 June, 1900, *John A. Collins, Jr.*

"It is with some hesitation that I base this new variety upon an isolated specimen, especially as the plant was introduced evidently into the eastern locality, but I feel confident that the same form will be found sooner or later in its native country, most likely in California. Our thanks are due Prof. Willis L. Jepson for a careful comparison of Mr. Collins's specimen with the material in the Herbarium of the University of California."

The species of *Phlox* recorded are all escapes that have become more or less established in various localities. A few instances will suffice. Mr. M. L. Fernald found *Phlox paniculata* locally abundant in Langdon, N. H., in July, 1899, in a roadside thicket, and Mr. C. H. Bissell has shown me the species from Lyme, Conn., where he says it was well established in July, 1892. Dr. C. B. Graves collected *Phlox maculata* in June, 1891, not far from New London, Conn., where the species had been established for many years, far from any cultivated plants of the same kind. *Phlox subulata* seems to show a fondness for spreading in and about old graveyards. It was found in such a situation by Mr. E. B. Chamberlain in Cumberland, Me., on June 23, 1902, and by Messrs. L. Andrews and C. H. Bissell in Southington, Conn., in May, 1899 and 1901, as well as by Mr. E. B. Harger in Oxford, Conn., on May 13, 1901. Mr. H. E. Sargent, writing from Wolfboro, N. H., under date of December 9, 1903, says, "It is *very abundant* in some cemeteries here, and also by the roadside in some places." He has sent me a specimen collected in Alton, N. H., in 1901 by Mr. George Roberts. Mr. E. F. Williams's herbarium contains specimens of this species recently collected in Milton and Halifax, Mass., while Mr. William H. Blanchard writes me that he found this plant growing in a cemetery in Stratton, Vt., on July 7, 1903. Specimens accom-

panied his letter. *Phlox subulata* grows naturally on Staten Island, and may possibly be found in western New England.

*Phlox divaricata* is indigenous near Quebec and in northern and western New York and consequently should be expected in northern and western New England.

Mr. H. E. Sargent of Wolfboro, N. H., has shown me a specimen of *Polemonium reptans*, doubtless an escape from cultivation, which a pupil of his collected in that town at a distance from any garden, on May 27, 1901. This species may be found growing naturally in western New England, for it occurs in New York State.

I have in my herbarium a specimen of *Polemonium Van-Bruntiae* collected on July 5, 1879, in Ripton, Vt., on the border of Abby Pond, 1500 feet above sea level, by President Ezra Brainerd, who recorded it in the Bulletin of the Torrey Botanical Club, VIII, 1881, 6. The range of this species as now known is limited to Vermont, New York, New Jersey and Maryland. It should be sought for in western Massachusetts and Connecticut.

Mr. W. P. Rich has given me a specimen of *Ellisia Nyctelea* collected by him in Everett, Massachusetts, on the border of the Revere Beach Parkway, on June 1, 1902. The plant was numerously represented and had been introduced in grass seed. Mr. Rich has recorded it in RHODORA, IV, 1902, 170. The species grows naturally from Virginia, south and west.

I very much doubt if there is extant a specimen of *Hydrophyllum canadense* from New England, but it certainly grows in western Massachusetts, for Mr. Ralph Hoffmann tells me that he collected it on the north slope of Greylock Mountain close to or within the limits of Williamstown on June 29, 1899. As he was not preserving plants at the time no specimens were kept. It grew "along a brook-side," but Mr. Hoffmann did not see much of it. Botanists will certainly visit this locality again, and the species will surely come to light before long. Dr. Jacob Bigelow, in his *Florula Bostoniensis*, 2d edition, published in Boston in 1824, says, on page 73, of *H. canadense*, "Collected in the western part of the State." A little later Professor Edward Hitchcock, in his Catalogue of plants growing without cultivation in the vicinity of Amherst College, published at Amherst in 1829, says, on p. 23, "Windsor, Dr. Porter." I find other references to this species from Massachusetts, all relating, where any definite locality is given, to the Connecticut valley or

west. Reverend Chester Dewey, in his Report on the herbaceous flowering plants of Massachusetts, Cambridge, 1840, on page 187, gives as the habitat of this species, "woods and hedges; June," but leaves the locality indefinite.

*Hydrophyllum canadense* was reported from Connecticut nearly three quarters of a century ago in a Catalogue of the phenogamous Plants and of the Ferns, found within five miles of Yale College, by Doctors Eli Ives, William Tully, and Melines C. Leavenworth, published in the Annals of Yale College in New Haven, Connecticut, in 1831, by Ebenezer Baldwin. The reference occurs on page 282 where the name is inserted without comment. There must have been considerable botanical activity in those early days, for the authors say in the preface preceding the list:—"within five miles of Yale College, somewhat more than 1150 phenogamous plants and ferns, have already been ascertained." Recent lists give no additional information in regard to this plant; they either make very indefinite references to it or omit it altogether. It must certainly have occurred in New England when such definite localities have been recorded by botanists of distinction, and it will be most interesting to learn of the rediscovery of the species in western New England. Although it does not occur very close to the borders of New England, yet in Dr. John Torrey's Flora of the State of New York, published at Albany in 1843, we find in volume II, page 92, that it grows "In rich shady soils, northern and western parts of the State; common."

*Hydrophyllum appendiculatum* is reported from Connecticut in the same list mentioned above under *H. canadense*. The name occurs on the same page and is also without comment. The nearest station that I can find for this species is the flats of the Mohawk River, near Utica, New York, where the plant is rare as it is elsewhere in the State.

In the herbarium of Brown University there is a specimen of *Hydrophyllum virginicum* labelled in Mr. J. L. Bennett's handwriting, "*Hydrophyllum*, R. I. July, 1881, G. Hunt." As the label is not the original one and the locality is very indefinite, it is best to disregard the evidence furnished by the specimen. • It may have been an escape, but more proof is needed that the species is native to the State.

At least twenty-five years ago Mr. C. G. Pringle found in a patch

of rich woods in Charlotte, Vt., a *Hydrophyllum* exhibiting characters unlike those of any known species. It grew in "a clump about a foot broad, the entire clump of uniform character and of rather dense growth." As it bore no resemblance to *H. virginicum*, Mr. Pringle says that he supposed it to be *H. canadense*, which he had never seen at that time, and he sent it out to several of his correspondents under that name. A flowering specimen deposited in the Gray Herbarium was examined by Dr. Sereno Watson, Dr. Gray being in Europe at the time, and was pronounced an undescribed species. It was not published, however, and, to quote from Mr. Pringle, who has kindly furnished me with most of my information in a letter dated November 12, 1903: "When I visited Cambridge a few years later, I asked Dr. Gray's opinion of my plant. He assured me that he had examined it critically, had found its flowers defective, sterile, and had judged it to be a monstrosity or abnormal condition of *H. Virginicum*. He charged me to watch the behavior of the plant, to see whether it ever produced seeds. . . . I had my plant marked and was wont to return to it year by year, sometimes taking off more specimens. There was no confusing it with *H. Virginicum*, as it was growing isolated. Though I revisited it during several years, I never found its flowers bearing seed. And more, the last time I saw it, some of the rhizomes which composed the clump were showing normal *H. Virginicum* leaves. I felt positively sure that the plant was recovering its normal *Virginicum* type. There was no chance for mistake about it. After I had been away from home on several annual journeys, I looked again one summer for the plant; but no trace of it was to be found. The young trees, which had sprung up around it, had become so dense as to choke it out."

I have examined two specimens of this remarkable plant, one kindly loaned me by Prof. L. R. Jones from the Herbarium of the University of Vermont, collected on June 2, 1878, and one in the Gray Herbarium, collected on June 6, 1879. The two specimens are identical. If the plant is an instance of teratology, it certainly retains absolutely no characters of whatever species it is allied to, with the exception of the production, on one occasion, of *virginicum* leaves, which Mr. Pringle unfortunately did not preserve. A fact tending to prove its abnormality is the absence of ovules which careful microscopic examination in which I was assisted by Dr. B. L.

Robinson and Dr. J. M. Greenman failed to discover. Dr. Watson, as I stated before, at first believed it to be a new species, and he went so far as to attach a specific name to it on the sheet. He was, however, evidently persuaded by Dr. Gray to abandon that position, for he never published it. Whatever the plant may be, its extraordinary appearance, so totally unlike that of *virginicum* or *canadense*, or, in fact, of any species of *Hydrophyllum*, and the fact that it preserved its characters for so many years, seem to render it advisable to put the plant on record as follows:

*HYDROPHYLLUM* sp. ? Branching perennial, 4 dm. high: rhizome nodulose, horizontal or oblique: stem branching from near the base, erect, striate, strigillose-pubescent, the short white very acute hairs appressed or more often retrorse: leaves alternate, thin; the blade ovate, coarsely and pinnately about 9-toothed or parted, 6 to 8 cm. long, 4 to 6 cm. broad, pinnately nerved; the teeth or lobes ovate to elliptic-oblong, obtuse or obtusish, mucronate; the sinuses acute or narrowly rounded, above sparsely strigillose, dark green, beneath paler and strigillose; lower petioles very long, 11 to 20 cm. in length, the upper 1.5 to 3.5 cm. long: cymes round-topped, 2.5 cm. broad, raised on slender, strigillose peduncles 2 to 7.5 cm. long; pedicels in anthesis 3 mm. long: calyx deeply 5-parted; lobes linear, acute, 3-nerved, strigillose on the outer surface, hispid-ciliate chiefly near the tip, 3.5 mm. long, 0.8 mm. broad: corolla funnel-formed, 5-parted to the middle, 6 mm. long, probably white; lobes oblong, rounded at the apex; internal folds 2.5 mm. long; filaments 8 mm. long, glabrous; anthers oblong, mucronate: style filiform, glabrous, 1 cm. long, shortly 2-cleft; stigmas capitate; ovary hairy, 1-celled, containing the two large involute placentæ characteristic of the genus, but so far as can be determined entirely devoid of ovules.

The *Phacelias* listed are waifs growing on flats, in wool-waste and similar places, and have a general interest attaching to introduced plants.

In the Flora of Mount Desert Island, Maine, published by Messrs. Rand and Redfield in 1894, the late Dr. Thomas Morong comments, on page 135, on a peculiar form of *Utricularia gibba* as follows: "The flower has the spurs of *U. biflora* very decidedly, but the foliage and the bladders are those of *U. gibba*. The spur here is oblong, narrow, not curved but projecting straightwise, and the perianth is somewhat larger than is generally the case in *U. gibba*. Other specimens with foliage and bladders better represented might show this to be *U. biflora*, but at present it is safer to call it '*U. gibba* verging towards *U. biflora* in flowers.'" The letter containing the above

remarks was written to me, and I have the very specimens that were examined, for they were returned to me with the letter. They were collected at Somes Pond by Mr. E. L. Rand, who sent them to me. I have other specimens of the same collecting besides abundant typical material from elsewhere. Comparison of all these specimens shows that the points of difference between the Somes Pond form and typical plants lie in the size of the flowers and in the longer narrow spur. Dr. Morong says that the spur is "not curved," but a slight curve does occur in specimens that were not submitted to him. In the Gray Herbarium are specimens collected in South Kingston, R. I., by Olney and Thurber in 1846, resembling in size of flowers and shape of spur the forms submitted to Dr. Morong. These points alone do not seem to warrant regarding the plants as more than a form of *gibba*, and it is much better to follow Dr. Morong's critical judgment as expressed above.

In the Bulletin of the Torrey Botanical Club, III, 1872, 56, Mr. Elihu S. Miller reports finding *Utricularia fibrosa*, Walt. (*U. striata*, Le Conte) at Wading River, in the northern part of Long Island. As the width of Long Island Sound only separates this station from Connecticut, the species should be looked for in the southern part of that State.

The latest published record crediting *Utricularia purpurea* to Vermont, and embodying the results of all previous study of the flora of that State, is found in the Flora of Vermont by Brainerd, Jones and Eggleston, published in 1900, where stations for that species are given on the authority of the late Dr. F. Blanchard of Peacham, Vt. In my search for herbarium specimens of this species from that State I have been kindly aided by the three authors of the above-mentioned Flora, but every effort has failed to disclose the plant. Dr. Blanchard was a copious collector in Vermont and many herbaria contain specimens of his work. These herbaria I have traced and examined with the greatest care, but without result. *Utricularia purpurea* from Vermont has failed to appear. Mr. Eggleston wrote me in December, 1903, that Mrs. Alice F. Stevens of Washington, D. C., had written him in 1895 that in her herbarium, among Dr. Blanchard's plants, of which she had purchased a large number, was *U. purpurea* from East Barnet and West Danville, Vt. Mr. Eggleston, however, did not see the specimens. Mrs. Stevens writes me that she cannot recall the circumstance and that a careful

search in her herbarium does not reveal the plants, but that a few years ago, alarmed at the dampness in the room where they were stored, she examined them and destroyed quite a number, among which might possibly have been the much desired species. She has sent me one of Br. Blanchard's *Utricularias* marked "*U. purpurea?*" but no other data accompanies the sheet, so that it is only presumably from Vermont, while the specimen is not *purpurea* but *intermedia*. Of course I do not think that there is the very slightest doubt that the species occurs in Vermont, for it is found in all the other New England States, specimens from which I have seen, but under the circumstances I do not feel justified in crediting it to the State. It will doubtless turn up during the coming summer in one or more of the many ponds or streams that are scattered over Vermont.

*Utricularia subulata* reaches its northern limit, as far as I can discover, in southern New England, where I know it to occur only at Worden's Pond, South Kingston, R. I. (Plants of Rhode Island, J. L. Bennett, 1888, 28); Nantucket, Mass., where I have collected it at Tom Never's Pond and Gibb's Pond; and "within five miles of Yale College," New Haven, Conn. (Annals of Yale College in New Haven, Conn., E. Baldwin, 1831, 300). This is in the list of plants referred to above under *Hydrophyllum canadense*.

*U. cleistogama* has been reported only from Nantucket and Cape Cod, Mass., and appears to reach its northern limit here. They are both coastal species.

I have been unable to find even a published record of the occurrence of *Utricularia clandestina* from New Hampshire or of *U. minor* from Vermont, but there is no reason why these species should not grow in these States, as they are so generally distributed over the rest of New England.

In the Herbarium of the New England Botanical Club is a specimen of *Martynia louisiana* labelled "Boston, 1877. C. E. Perkins." This very transient stranger was probably collected on South Boston flats. Prof. George L. Goodale in his Catalogue of the flowering plants of Maine, published in the Proceedings of the Portland Society of Natural History, I, 1862, 56, says of this species: "occurs in Portland around wharves of Cuban traders."

Prof. L. R. Jones of the University of Vermont, Burlington, Vt., has been kind enough to send me from the herbarium for examination the classic sheet of *Dianthera americana* collected in

the first quarter of the last century, about 1819, in Ferrisburg, Vermont, by Dr. William Paddock, and representing the only known specimen from the only known station in New England. Dr. Paddock was Professor of Botany and *Materia Medica* in the Medical Department of the University of Vermont from 1821 to 1824. Prof. Jones in a letter to me writes that he has learned from Prof. G. H. Perkins that all of Dr. Paddock's collections (of which there was quite a package in the herbarium when it came into Prof. Perkins's charge) were made about 1819.

Owing to the rarity as well as antiquity of the specimen, a description of it may not be amiss. The original sheet measures twelve by seven inches and contains a small specimen about five inches long, of six leaves and two heads or spikes, one in bud and one in flower. Below this are three separate leaves and one spike in flower with its long peduncle. These fragments are all glued to the sheet. Two labels pasted on the sheet and written in black ink read:—"*Justicia pedunculata*" and "26 Sept. Ferrisburgh Vt." This sheet is pasted on to a larger one, sixteen by ten inches in dimensions and contains the following inscription in red ink in the corner:—"*Justicia Americana*, Vahl. Dr. Paddock's specimen. *Dianthera Americana*, L." In a letter accompanying the sheet Prof. Jones tells me that the words "*Justicia Americana*, Vahl. Dr. Paddock's specimen" are in the handwriting of Prof. Joseph Torrey, who was connected with the University as Professor and President from 1827 to 1867. This is a good voucher for the authenticity of the specimen. Prof. Perkins says that the plant can be no other than the one collected by Dr. Paddock. Definite reference to this specimen is made by William Oakes on page 194 of his *Botany of Vermont*, published in Thompson's *History of Vermont* in 1842, where it is also stated that it was seen by Dr. J. W. Robbins.

*Dianthera americana* is recorded from near Montreal, from Staten Island and through central New York, and should be looked for in the western parts of Vermont, Massachusetts and Connecticut. It is hoped that the old and interesting record now remaining as the sole one from New England will soon be broken.

CAMBRIDGE, MASSACHUSETTS.

## THE GREEN ALDERS OF NEW ENGLAND.

M. L. FERNALD.

*Ainus viridis*, DC. (*A. Alnobetula*, K. Koch) is the type of a sub-genus which is represented in alpine or cool situations in nearly all parts of the northern hemisphere. The European shrub, *A. viridis*, a species of mountain districts, has glabrous twigs, thinnish but finally firm leaves which are glabrate and pale beneath and in maturity 3 to 6 cm. long, the mature fertile aments 0.8 to 1.3 cm. long, 5 to 9 mm. thick. In northeastern America it is represented by two shrubs, both of which have been generally referred to it.

*A. CRISPA*, Pursh, Fl. 623 (1814). *Betula crispa*, Aiton, Hort. Kew. iii. 339 (1789). This is the nearest ally of *A. viridis* in America, but differs from the European shrub in its much firmer thick leaves which are more rugose and with greener under surfaces. It occurs from Labrador and Hudson Bay south to the Alpine summits of Mts. Katahdin, Washington, Mansfield, and Whiteface (New York). For the identification of our alpine shrub I am indebted to Mr. Edmund G. Baker of the British Museum of Natural History, who has obligingly compared material of this and of the following shrub with the original of Aiton's *Betula crispa* which proves to be essentially like the firm-leaved glabrate shrub of Mt. Katahdin.

*A. mollis*, n. sp. Young branches and peduncles pubescent: mature leaves 4.5 to 10 cm. long, closely serrate with sharp unequal teeth, and permanently covered beneath with a soft short plush-like pubescence: mature fertile aments 1.2 to 2 cm. long, 0.9 to 1.2 cm. thick.—Cold bogs, swamps, exposed rocky banks, etc., Newfoundland to Lake Winnipeg, south to southern Maine and New Hampshire, western Massachusetts, New York and Lake Superior. Specimens examined:—

NEWFOUNDLAND, near Topsail, Conception Bay, August, 1901 (*Howe & Lang*, no. 1342); St. John's, August 1, 1894 (*Robinson & Schrenk*, no. 24); NEW BRUNSWICK, Kent County, 1870 (*Fowler*): NOVA SCOTIA, Point Pleasant, June 18, 1884 (*Macoun*); Pictou, July, 1901, Digby, July, 1901, Yarmouth, June, 1901 (*Howe & Lang*, nos. 552, 273, 46); MAINE, St. Francis, Aug. 17, 1893—no. 98, Ashland, June 13, 1898—no. 2445, Island Falls, Aug. 26, 1897, Blanchard, Sept. 4, 1897, Orono, May 24 and Aug. 18, 1890, Cutler, July 1, 1902, Southport, Aug. 1, 1894 (*M. L. Fernald*); Dover, May and July 1, 1896 (*G. B. Fernald*, nos. 5, 45, 62, 65); Manchester (*Scribner*); Northport (*Furbish*); NEW HAMPSHIRE, White

Mountains (*Tuckerman*); Crawford Notch, 1888 (*Swan*); Oakes Gulf, Mt. Washington, alt. 4500 ft., June 29, 1898 (*Williams*); Ammonusuc River, September, 1842 (*A. Gray*): VERMONT, Brookline June 30, 1895 (*Grout*): MASSACHUSETTS, Buckland, July 26, 1903 (*F. F. Forbes*): ONTARIO, Nepigon, September, 1896 (*G. S. Miller*); near Sault Ste. Marie, 1848 (*Loring*); Silver Islet, August, 1871 (*Gillman*): MANITOBA, Lake Winnipeg, 1857 (*Bourgeau*).—Occasional specimens from alpine situations have the small fertile aments of *A. crispa*, but ordinarily this shrub of temperate areas is very constant in its characters and is quite unlike any Old World shrubs of the *viridis* group known to the writer.

#### GRAY HERBARIUM.

AN INTERESTING SPECIMEN OF *ARISÆMA TRIPHYLLUM*, TORR., the common "Jack-in-the-Pulpit," was recently brought to me by a school-boy. It showed a peculiar malformation, the inflorescence being made up of two spathes and three spadices. The spathes were each

perfectly formed and were connected at the base where one overlapped and enclosed the other; but the spadices were each much wider throughout than is normal, and they were also deeply grooved and ridged lengthwise, and united at the base where the spathes scarcely clasped around them.



Whether or not the plant showed any other tendency to abnormal growth I am unable to say, for the "flower," snapped off boy fashion, is all that I have been able to procure. Probably some readers of *RHODORA* have seen monstrous growths of *Arisæma triphyllum* in which there have been two spathes with one spadix, as noted by Prof. W. W. Bailey,

Bot. Gaz. ix, 177, or vice versa, but I doubt if anyone has before come across a specimen showing so much divergence from the normal form as is found here in the specimen illustrated. — ALICE G. CLARK, East Weymouth, Massachusetts.

A NEW STATION FOR *NYSSA SYLVATICA* IN MAINE. — In Dame and Brooks' Handbook of the Trees of New England, p. 159, the only locality in Maine given for *Nyssa sylvatica*, Marsh., is "Waterville on the Kennebec." I have in my collection a specimen, brought me by Walter Emery of Wells Depot, which he collected in the town of Newfield, York Co. — J. C. PARLIN, North Berwick, Maine.

---

NOTICE OF ANNUAL FIELD MEETING OF THE VERMONT BOTANICAL CLUB. — The tenth annual field meeting of the Vermont Botanical Club will be held at Silver Lake and at Lake Dunmore, Addison Co., on Tuesday and Wednesday, July 12 and 13, 1904. This will be a joint gathering with the Vermont Bird Club, following the successful practice of the last two summers.

The members of the Club are expected to meet at "The Inn" Brandon, on Tuesday, by trains arriving from the south at 10.54 A. M. or 2.40 P. M., and from the north at 10.15 A. M. or 2 P. M. After dinner conveyances will start for Silver Lake, along a mountain road, where there is much of botanical interest. Fare 35 to 50 cents. Supper, lodging and breakfast will be had at the Silver Lake House for one dollar each. On Wednesday excursions will be formed for the ascent of Rattlesnake Point on Moosalamoo Mt., or for trips by rowboats or steamer to points of interest along the lake.

Dinner and supper may be had at the Lake Dunmore House at special rates. Members of the party may return that evening or on the following day, and either by Brandon or by Middlebury, as they may decide after getting on the ground.

It is important that hotel and livery proprietors should know in advance just what numbers they are to provide for; and the members of the Clubs who expect to attend the meeting are requested to send in their names to President Brainerd of Middlebury at least one week in advance of the gathering.

EZRA BRAINERD,

M. D. CHITTENDEN,

MISS CARRIE W. ORMSBEE,

*Committee on Field Meeting.*

Middlebury, Vt., June 8, 1904.

*Vol. 6, No. 66, including pages 93-148 and plates 54-56, was issued 15 June, 1904.*

## BOTANICAL PUBLICATIONS

**NEW ENGLAND FERNS AND THEIR COMMON ALLIES** by HELEN EASTMAN. A Book of Reference and Pocket Companion for vacation days in fields and woods. 12mo, Illustrated, \$1.25, net.

HOUGHTON, MIFFLIN & CO.,

4 PARK STREET, BOSTON, MASS.

**SYNOPTICAL FLORA OF NORTH AMERICA**, by A. GRAY and others. Vol. I. Fascicles 1 and 2. A critical treatment of forty-five families of polypetalæ (*Ranunculaceæ* to *Polygalaceæ*) 1895-1897. \$5.20.—GRAY HERBARIUM of Harvard University, Cambridge, Mass.

**FLORA OF MT. DESERT ISLAND, MAINE**, by EDWARD L. RAND and JOHN H. REDFIELD. With a Geological Introduction by WILLIAM MORRIS DAVIS. 1894. And a new map of the Island. 1901. Price \$2.00, post free.—Address EDWARD L. RAND, 53 State Street, Boston, Mass.

**NEW ENGLAND WILD FLOWERS AND THEIR SEASONS**, by WILLIAM WHITMAN BAILLY. Price 75 cents net.—PRESTON & ROUNDS Co., Providence, R. I.

### FERNS AND FERN ALLIES

The only magazine in the world devoted to these plants is **THE FERN BULLETIN**, Binghamton, N. Y. It contains the information that cannot be had from books and keeps your knowledge up to date. 75 cents a year. Send for sample. We offer sets from 1898 to end of 1904, complete, 812 pages for \$4.50. Earlier numbers out of print.

### GENERAL ADVERTISEMENTS.

#### HOME GROWN LILIES.

Fresh from Beds. Wild Flowers, Hardy plants of all kinds.  
Send for catalogue.

F. H. HORSFORD, Charlotte, Vt.

**CONCORD NURSERIES**, Concord, Massachusetts. Established on Minot Pratt's Homestead by his son, F. G. PRATT. Over 300 species grown, including *Rhodora*, pink and white, *Andromedas*, *Cornels*, *Viburnums*, *Kalmias*, *Ivy*, *Myrica*, *Benzoin*, *Hamamelis*. E. Mass. plants collected. Catalogue.

# A Model Botanical Text-Book

LEAVITT'S OUTLINES OF BOTANY, . . .	\$1.00
With Gray's Field, Forest and Garden Flora, . . .	1.80
With Gray's Manual of Botany, . . .	2.25

*For the High School Laboratory and Class Room.*

By ROBERT GREENLEAF LEAVITT, A. M., of the Ames Botanical Laboratory. Prepared at the request of the Botanical Department of Harvard University.

THE practical exercises and experiments have been so chosen that they may be performed by schools with even simple apparatus. The instructions for laboratory study are placed in divisions by themselves, preceding the related chapters of descriptive text. The book combines the best features of the newest methods with that lucidity and definiteness which have given Dr. Gray's text-books their extraordinary success. It pays special attention to ecology, but morphology and physiology are also fully treated. The illustrations number 384, and have been drawn with great care and accuracy. The appendix contains valuable suggestions for the teacher, and the index is very complete.

**American Book Company**

New York

Cincinnati

Chicago

Boston

## BOTANICAL DRAUGHTSMAN

GENERAL BIOLOGICAL DRAWING FOR TRUTHFUL AND  
EFFECTIVE REPRODUCTION.

P. B. WHELPLEY, Dublin, New Hampshire.

## THE PLANT WORLD,

Established 1897.

An Illustrated Monthly Magazine devoted to Plants.

Send a two-cent stamp for a Sample Copy if you would like to know more about it. You can judge better, however, if you try a year's subscription for \$1.50. We will make you feel satisfied.

The Plant World Company,

Box 334, Washington, D. C.

Mention "RHODORA."